10/634,713

2

PC25298A

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1 (currently amended).

A compound of Formula I

$$R^{1} - Q - D - (V^{1})_{t} - R^{2}$$

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A compound of Formula II or IV

$$\begin{array}{c|c}
R^{\dagger} - Q & & & \\
N & & & \\
N & & & \\
R^{4} & & & \\
\end{array}$$

 $\underline{\Pi}$

<u>or</u>

$$R^1-Q$$
 N
 $(V^1)_t-R^2$
 R^4

<u>IV</u>

or a pharmaceutically acceptable salt thereof,

wherein:

 \mathbb{R}^1 and \mathbb{R}^2 independently are selected from:

C₁-C₆ alkyl;

Substituted C1-C6 alkyl;

C2-C6 alkenyl;

Substituted C2-C6 alkenyl;

C2-C6 alkynyl;

10/634,713 3 PC25298A

Substituted C2-C6 alkynyl;

C₃-C₆ cycloalkyl;

Substituted C₃-C₆ cycloalkyl;

C₃-C₆ cycloalkyl-(C₁-C₆ alkylenyl);

Substituted C₃-C₆ cycloalkyl-(C₁-C₆ alkylenyl);

3- to 6-membered heterocycloalkyl;

Substituted 3- to 6-membered heterocycloalkyl;

3- to 6-membered heterocycloalkyl-(C1-C6 alkylenyl);

Substituted 3- to 6-membered heterocycloalkyl-(C1-C6 alkylenyl);

Phenyl-(C₁-C₆ alkylenyl);

Substituted phenyl-(C₁-C₆ alkylenyl);

Naphthyl-(C₁-C₆ alkylenyl);

Substituted naphthyl-(C₁-C₆ alkylenyl);

5-, 6-, 9-, and 10-membered heteroaryl-(C₁-C₆ alkylenyl);

Substituted 5-, 6-, 9-, and 10-membered heteroaryl-(C1-C6 alkylenyl);

Phenyl;

Substituted phenyl;

Naphthyl;

Substituted naphthyl;

5-, 6-, 9-, and 10-membered heteroaryl;

Substituted 5-, 6-, 9-, and 10-membered heteroaryl;

 R^3O -(C_1 - C_6 alkylenyl);

Substituted R³O-(C₁-C₆ alkylenyl);

Phenyl-O-(C₁-C₈ alkylenyl);

Substituted phenyl-O-(C₁-C₈ alkylenyl);

Phenyl-S-(C₁-C₈ alkylenyl);

Substituted phenyl-S-(C1-C8 alkylenyl);

Phenyl-S(O)-(C₁-C₈ alkylenyl);

Substituted phenyl-S(O)-(C₁-C₈ alkylenyl);

Phenyl- $S(O)_2$ - $(C_1$ - C_8 alkylenyl); and

PC25298A

10/634,713 4

Substituted phenyl-S(O)2-(C1-C8 alkylenyl);

wherein R¹ and R² are not both selected from:

C₁-C₆ alkyl;

C2-C6 alkenyl;

C2-C6 alkynyl; and

C₃-C₆ cycloalkyl;

Each R³ independently is selected from:

H;

C₁-C₆ alkyl;

Substituted C1-C6 alkyl;

C₃-C₆ cycloalkyl;

Substituted C₃-C₆ cycloalkyl;

Phenyl-(C₁-C₆ alkylenyl);

Substituted phenyl-(C₁-C₆ alkylenyl);

Naphthyl-(C₁-C₆ alkylenyl);

Substituted naphthyl-(C₁-C₆ alkylenyl);

5-, 6-, 9-, and 10-membered heteroaryl-(C₁-C₆ alkylenyl);

Substituted 5-, 6-, 9-, and 10-membered heteroaryl-(C1-C6 alkylenyl);

Phenyl;

Substituted phenyl;

Naphthyl;

Substituted naphthyl;

5-, 6-, 9-, and 10-membered heteroaryl;

Substituted 5-, 6-, 9-, and 10-membered heteroaryl;

D is a heteromonocyclic diradical:

10/634,713 5

PC25298A

Each R⁴ independently is selected from:

H;

F;

CH₃;

CF₃;

C(O)H;

CN;

HO;

CH₃O;

C(F)H₂O;

 $C(H)F_2O$; and

CF₃O;

t is an integer of 0 or 1;

V¹ is selected from:

a 5-membered hoteroarylenyl;

CH₂C=C;

10/634,713

6

PC25298A

 $CF_2C C=C;$

C(O)O;

C(S)O;

C(O)N(R⁵); and

C(S)N(R⁵);

 V^1 is

N=N N

Q, when bonded to a nitrogen-atom in group D, is selected from:

OC(O);

CH(R⁶)C(O);

OC(NR6);

CH(R⁶)C(NR⁶);

N(R⁶)C(O);

N(R⁶)C(\$);

N(R6)C(NR6);

SC(O);

CH(R⁶)C(S);

SC(NR⁶);

C=CCIL;

C=CCF2;

10/634,713

7

PC25298A

$$R^6$$
 R^6
 R^6
 R^6
 R^6
 R^6
 R^6
 R^6
 R^6
 R^6

Q, when bonded to a carbon atom in group-D, is as defined above and may further be selected from:

OCH;

N(R6)CH2;

trans-(H)C=C(H);

cis (H)C=C(H);

C=C;

CH₂C=C; and

CF2C=C;

Each X independently is O, S, N(H), or N(C1-C6-alkyl);

Each V independently is C(II) or N;

Each R5 independently is H or C1-C6 alkyl;

O is $N(R^6)C(O)$ or $C \equiv C$;

R⁶ is H, C₁-C₆ alkyl, C₃-C₆ cycloalkyl; 3- to 6-membered heterocycloalkyl;

phenyl; benzyl; or 5- or 6-membered heteroaryl;

Each "substituted" group contains from 1 to 4 substituents, each independently on a carbon or nitrogen atom, independently selected from:

C₁-C₆ alkyl;

C₂-C₆ alkenyl;

C2-C6 alkynyl;

10/634,713 8 PC25298A

C₃-C₆ cycloalkyl;

C₃-C₆ cycloalkylmethyl;

Phenyl;

Phenylmethyl;

3- to 6-membered heterocycloalkyl;

3- to 6-membered heterocycloalkylmethyl;

cyano;

CF₃;

(C₁-C₆ alkyl)-OC(O);

HOCH2;

 $(C_1-C_6 \text{ alkyl})-OCH_2;$

H₂NCH₂;

(C₁-C₆ alkyl)-N(H)CH₂;

 $(C_1-C_6 \text{ alkyl})_2-NCH_2;$

 $N(H)_2C(O)$;

 $(C_1-C_6 \text{ alkyl})-N(H)C(O);$

 $(C_1-C_6 \text{ alkyl})_2-NC(O);$

 $N(H)_2C(O)N(H)$;

 $(C_1-C_6 \text{ alkyl})-N(H)C(O)N(H);$

 $N(H)_2C(O)N(C_1-C_6 \text{ alkyl});$

 $(C_1-C_6 \text{ alkyl})-N(H)C(O)N(C_1-C_6 \text{ alkyl});$

 $(C_1-C_6 \text{ alkyl})_2\text{-NC}(O)N(H);$

 $(C_1-C_6 \text{ alkyl})_2-NC(O)N(C_1-C_6 \text{ alkyl});$

 $N(H)_2C(O)O;$

 $(C_1-C_6 \text{ alkyl})-N(H)C(O)O;$

 $(C_1-C_6 \text{ alkyl})_2-NC(O)O;$

HO;

 $(C_1-C_6 \text{ alkyl})-O;$

CF₃O;

 $CF_2(H)O;$

10/634,713 9 PC25298A

CF(H)₂O;

 H_2N ;

 $(C_1-C_6 \text{ alkyl})-N(H);$

 $(C_1-C_6 \text{ alkyl})_2-N$;

 O_2N ;

 $(C_1-C_6 \text{ alkyl})-S;$

 $(C_1-C_6 \text{ alkyl})-S(O);$

 $(C_1-C_6 \text{ alkyl})-S(O)_2;$

 $(C_1-C_6 \text{ alkyl})_2-NS(O)_2;$

 $(C_1-C_6 \text{ alkyl})-S(O)_2-N(H)-C(O)-(C_1-C_8 \text{ alkylenyl})_m$; and

. $(C_1-C_6 \text{ alkyl})-C(O)-N(H)-S(O)_2-(C_1-C_8 \text{ alkylenyl})_m$;

wherein each substituent on a carbon atom may further be independently selected from:

Halo;

HO₂C; and

OCH₂O, wherein each O is bonded to adjacent carbon atoms to form a 5-membered ring;

wherein 2 substituents may be taken together with a carbon atom to which they are both bonded to form the group C=O;

wherein two adjacent, substantially sp² carbon atoms may be taken together with a diradical substituent to form a cyclic diradical selected from:

Mar-10-2006 01:58pm From- T-707 P.011/017 F-115

10/634,713 10 PC25298A

Each m independently is an integer of 0 or 1;

R is H or C_1 - C_6 alkyl;

wherein each 5 membered heteroarylonyl independently is a 5 membered ring containing earbon atoms and from 1 to 4 heteroatoms selected from 1 O, 1 S, 1 NH, 1 N(C₁-C₆-alkyl), and 4 N, wherein the O and S atoms are not both present, and wherein the heteroarylonyl may optionally be unsubstituted or substituted with 1 substituent selected from fluoro, methyl, hydroxy, trifluoromethyl, cyano, and acetyl;

wherein each heterocycloalkyl is a ring that contains carbon atoms and 1 or 2 heteroatoms independently selected from 2 O, 1 S, 1 S(O), 1 S(O)₂, 1 N, 2 N(H), and 2 N(C₁-C₆ alkyl), and wherein when two O atoms or one O atom and one S atom are present, the two O atoms or one O atom and one S atom are not bonded to each other, and wherein the ring is saturated or optionally contains one carbon-carbon or carbon-nitrogen double bond;

wherein each 5-membered heteroaryl contains carbon atoms and from 1 to 4 heteroatoms independently selected from 1 O, 1 S, 1 N(H), 1 N(C₁-C₆ alkyl), and 4 N, and each 6-membered heteroaryl contains carbon atoms

Mar-10-2006 01:58pm From-

10/634,713 PC25298A

and I or 2 heteroatoms independently selected from N, N(H), and N(C₁-C₆ alkyl), and 5- and 6-membered heteroaryl are monocyclic rings; and 9- and 10-membered heteroaryl are 6,5-fused and 6,6-fused bicyclic rings, respectively, wherein at least 1 of the 2 fused rings of a bicyclic ring is aromatic, and wherein when the O and S atoms both are present, the O and S atoms are not bonded to each other;

wherein with any (C₁-C₆ alkyl)₂-N group, the C₁-C₆ alkyl groups may be optionally taken together with the nitrogen atom to which they are attached to form a 5- or 6-membered heterocycloalkyl; and wherein each group and each substituent recited above is independently selected.

2-5 (canceled).

6 (currently amended). The compound according to any one of Claims-1-to 5 claim 1, or a pharmaceutically acceptable salt thereof, wherein at least one of R¹ and R² is independently selected from:

Phenyl-(C₁-C₆ alkylenyl); and Substituted phenyl-(C₁-C₆ alkylenyl);

wherein each group and each substituent is independently selected.

7 (currently amended). The compound according to according to any one of Claims 1 to 5 claim 1, or a pharmaceutically acceptable salt thereof, wherein at least one of \mathbb{R}^1 and \mathbb{R}^2 is independently selected from:

5-, 6-, 9-, and 10-membered heteroaryl-(C₁-C₆ alkylenyl); and Substituted 5-, 6-, 9-, and 10-membered heteroaryl-(C₁-C₆ alkylenyl);

wherein each heteroaryl contains carbon atoms and from 1 to 4 heteroatoms independently selected from 1 O, 1 S, 1 N(H), 1 N(C₁-C₆ alkyl), and 4 N, and 5- and 6-membered heteroaryl are monocyclic rings and 9- and 10-membered heteroaryl are 6,5-fused and 6,6-fused bicyclic rings, respectively, wherein at least 1 of the 2 fused rings of a bicyclic ring is

Mar-10-2006 01:58pm From-

10/634,713 12 PC25298A

aromatic, and wherein when the O and S atoms both are present, the O and S atoms are not bonded to each other, and wherein each group and each substituent is independently selected.

8 (canceled).

- 9 (currently amended). The compound of Formula-II according to Claim 8, selected from:
 - 4-[5-(3-Benzylcarbamoyl-2,6-dioxo-3,6-dihydro-2H-pyrazin-1-yl)-tetrazol-2-yl]-benzoic acid;
 - 4-(5-{2,6-Dioxo-3-[(pyridin-4-ylmethyl)-carbamoyl]-3,6-dihydro-2H-pyrazin-1-yl}-tetrazol-2-yl)-benzoic acid;
 - 4-[3-(3-Benzylcarbamoyl-2,6-dioxo-3,6-dihydro-2H-pyrazin-1-yl)-prop-2-ynyl]-benzoic acid;
 - 4-(3-{2,6-Dioxo-3-[(pyridin-4-ylmethyl)-carbamoyl]-3,6-dihydro-2H-pyrazin-1-yl}-prop-2-ynyl)-benzoic acid;
 - 4-{2-[2,6-Dioxo-3-(3-phenyl-prop-1-ynyl)-3,6-dihydro-2H-pyrazin-1-yl]-oxazol-5-yl}-benzoic acid;
 - 4-{2-[3-(3-Imidazol-1-yl-prop-1-ynyl)-2,6-dioxo-3,6-dihydro-2H-pyrazin-1-yl]-oxazol-4-yl}-benzoic acid;
 - 4-{3-[2,6-Dioxo-3-(3-phenyl-prop-1-ynyl)-3,6-dihydro-2H-pyrazin-1-yl]-prop-2-ynyl}-benzoic acid;
 - 4-{3-[3-(3-Imidazol-1-yl-prop-1-ynyl)-2,6-dioxo-3,6-dihydro-2H-pyrazin-1-yl]-prop-2-ynyl}-benzoic acid;
 - 4-({[2,6-Dioxo-3-(5-phenyl-oxazol-2-yl)-3,6-dihydro-2H-pyrazine-1-carbonyl]-amino}-methyl)-benzoic acid;
 - 4-{3-[2,6-Dioxo-3-(5-phenyl-oxazol-2-yl)-3,6-dihydro-2H-pyrazin-1-yl]-prop-2-ynyl}-benzoic acid;
 - 4-{5-[2,6-Dioxo-3-(4-phenyl-oxazol-2-yl)-3,6-dihydro-2H-pyrazin-1-yl]-tetrazol-2-yl}-benzoic acid; and

10/634,713 PC25298A

4-{3-[2,6-Dioxo-3-(4-phenyl-oxazol-2-yl)-3,6-dihydro-2H-pyrazin-1-yl]-prop-2-ynyl}-benzoic acid; or a pharmaceutically acceptable salt thereof.

10 (canceled).

11 (original). A pharmaceutical composition, comprising a compound according to Claim 1, or a pharmaceutically acceptable salt thereof, admixed with a pharmaceutically acceptable carrier, excipient, or diluent.

12 (canceled).

13 (currently amended). A method for treating osteoarthritis or rheumatoid arthritis, comprising administering to a patient suffering from osteoarthritis or rheumatoid arthritis a nontoxic effective amount of a compound according to Claim 1 claim 9, or a pharmaceutically acceptable salt thereof.

14 (canceled).